



HUNTINGTON **FRONTIERS**

SPRING/SUMMER 2019

PHOTOGRAPHER CARLETON WATKINS

1919 MAP OF LOS ANGELES

CELIA PAUL AND THE BRONTËS

The Huntington Library, Art Collections, and Botanical Gardens

HUNTINGTON FRONTIERS

SENIOR STAFF OF THE HUNTINGTON

KAREN R. LAWRENCE
President

SANDRA L. BROOKE
Avery Director of the Library

LARRY J. BURIK
Vice President of Facilities

JAMES P. FOLSOM
Marge and Sherm Telleen/Marion and Earle Jorgensen
Director of the Botanical Gardens

HEATHER HART
Vice President of Information Technology

STEVE HINDLE
W. M. Keck Foundation Director of Research

CHRISTINA NIELSEN
Hannah and Russel Kully Director of the Art Collections

RANDY SHULMAN
Vice President for Advancement

SUSAN TURNER-LOWE
Vice President for Communications and Marketing

MAGAZINE STAFF

EDITOR
Kevin Durkin

DESIGNER
Lori Ann Achzet

Huntington Frontiers is published semiannually by the Office of Communications and Marketing. It strives to connect readers with the rich intellectual life of The Huntington, capturing in news and features the work of researchers, educators, curators, and others across a range of disciplines.

INQUIRIES AND COMMENTS:
Kevin Durkin, Editor, *Huntington Frontiers*
1151 Oxford Road, San Marino, CA 91108
huntingtonfrontiers@huntington.org

Unless otherwise acknowledged, photography is provided by The Huntington's Department of Imaging Services.

© 2019 The Huntington Library, Art Collections, and Botanical Gardens. All rights reserved. Reproduction or use of the contents, in whole or in part, without permission of the publisher, is prohibited.

FROM THE EDITOR

EXTRAORDINARY RANGE

In this issue, we open with a story about a fundamental question of evolutionary biology and close with one that links the emotionally charged paintings of a contemporary artist with the equally charged writings of the famous Brontë family. Few other institutions can embody such a range of subjects.

Staff member and Pulitzer Prize-winning science writer Usha Lee McFarling reports on the surprising results of a genetic study on cycads by Brian Dorsey, chief botanical researcher at The Huntington. He conducted his research into the age of the living *Dioon* species of cycads largely using leaves from The Huntington's collections and from cycads that recently arrived here as a bequest from Loran Whitelock, the late Los Angeles cycad collector and expert (see pg. 6).

Lily Allen, a curatorial assistant at The Huntington, takes a close look at a 1919 map of the City of Los Angeles by Laura L. Whitlock (1862–1934), a music teacher who transformed herself into a travel professional and cartographer, capturing a megalopolis on the rise (see pg. 8). The map is one of more than 250 items drawn from The Huntington's library, art, and botanical collections that will appear in "Nineteen Nineteen," the kick-off exhibition of The Huntington's Centennial Celebration. (The exhibition will be on view Sept. 21, 2019–Jan. 20, 2020, in the MaryLou and George Boone Gallery.)

For our cover story, we feature an excerpt from Tyler Green's *Carleton Watkins: Making the West American* (University of California Press, 2018), the first-ever biography of Watkins (1829–1916)—widely considered the greatest American photographer of the 19th century. The connection between Watkins and the Huntington family stretches back to the mid-19th century in Oneonta, New York, where native son Watkins, at the age of 14, met the future railroad magnate Collis P. Huntington, at the time a successful 20-year-old merchant. Today, The Huntington (cofounded by Collis's nephew, Henry E. Huntington) owns more than 1,000 Watkins photographs, including the image that graces the cover (see pg. 13).

Karla Nielsen, curator of literary collections at The Huntington, draws parallels between the lives and works of contemporary British artist Celia Paul and the Brontës, beginning with Paul's painting *The Brontë Parsonage (with Charlotte's Pine and Emily's Path to the Moors)*, on view through July 8 in the Huntington Art Gallery. The story features letters and a poetry manuscript by Charlotte Brontë from The Huntington's collection (see pg. 19).

No matter your interest, you are bound to find something surprising and intriguing in the pages ahead. Enjoy the journey.

Kevin Durkin

Kevin Durkin is editor of Huntington Frontiers and managing editor in The Huntington's Office of Communications and Marketing.

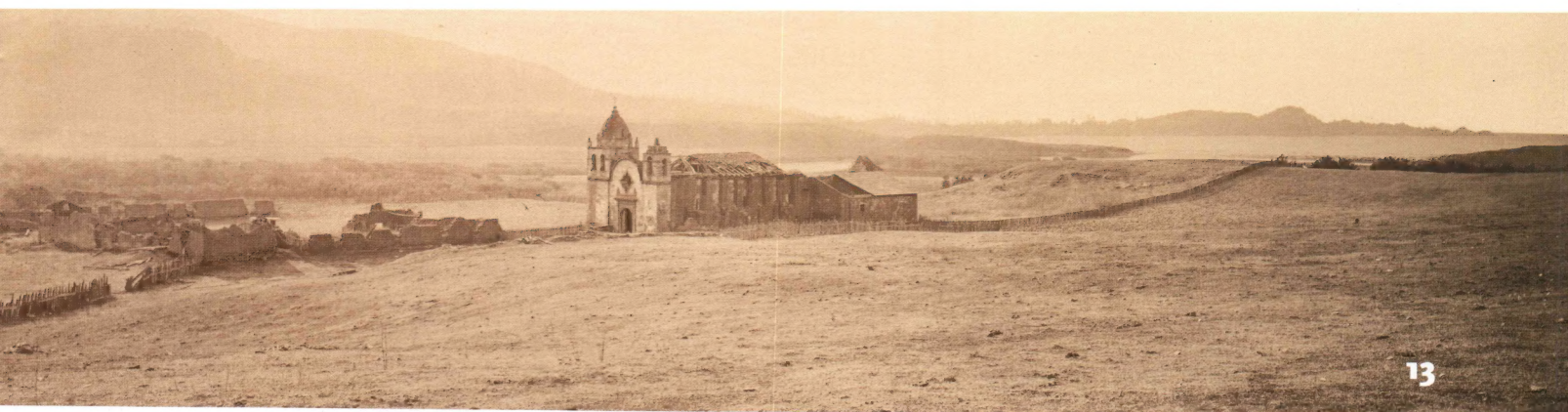
On the cover: Carleton Watkins, *Mount Watkins, Fully Reflected in Mirror Lake, Yosemite*, 1865–66. The Huntington Library, Art Collections, and Botanical Gardens.



THE HUNTINGTON
Library, Art Collections, and Botanical Gardens

1151 Oxford Road | San Marino, CA 91108 | huntington.org

Contents SPRING/SUMMER 2019



13

FEATURES

- MAPPING A CITY ON THE MOVE** 8
Pioneer cartographer Laura L. Whitlock captured a megalopolis in the making
By Lily Allen

- THE INFLUENTIAL VISION OF CARLETON WATKINS** 13
His indelible photographs captured and promoted the American West
By Tyler Green

DEPARTMENTS

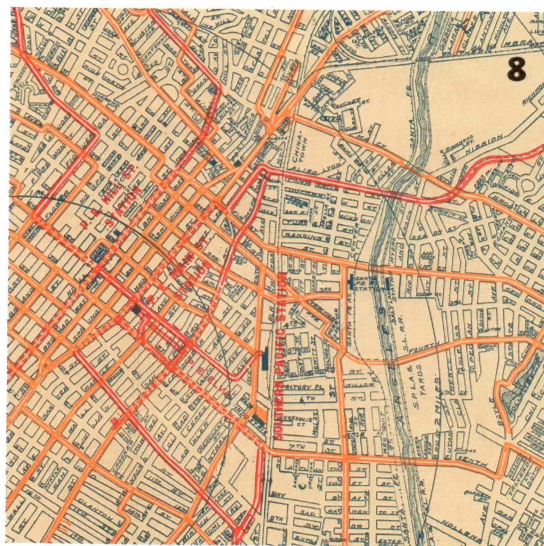
- SOCIAL SCENE** 4

- LESSONS LEARNED** 6
What's Old Is New Again
By Usha Lee McFarling

- CURATOR'S INSIGHT** 19
Painting the Wind
By Karla Nielsen

- IN PRINT** 22
Recommended Reading

- FINAL CUT** 23
Education Strike
By Lori Ann Achzet and Krystle Satrum



8



6

Top: Carleton Watkins, *Mission San Carlos Borromeo de Carmelo*, Monterey County, California, ca. 1880. The Huntington Library, Art Collections, and Botanical Gardens. Center: Detail of *Official Transportation and City Map of Los Angeles*, 1919. The Huntington Library, Art Collections, and Botanical Gardens. Bottom: The Huntington's chief botanical researcher, Brian Dorsey, collects cycad leaves for genetic analysis from a plant in The Huntington's collections. Photograph by Kate Lain.

SOCIAL SCENE

A PEEK AT WHAT WE'RE UP TO ONLINE

One of our biggest social campaigns this past fall was **#5atTheH**, featuring the work of two artists-in-residence, Carolina Caycedo and Mario Ybarra Jr. Each artist was selected in partnership with the Vincent Price Art Museum as part of the third year of The Huntington's five-year contemporary arts initiative, **/five**. The project culminated in the exhibition "Rituals of Labor and Engagement: Carolina Caycedo and Mario Ybarra Jr.," and our audience had the chance to follow the creative process of each artist from first concepts to final works. Here are some of the highlights from the campaign.



1. A still from the performance in the North Vista at The Huntington for "Apariciones/Apparitions," a video project by Carolina Caycedo. Choreographed by Marina Magalhães and shot by David de Rozas. Courtesy of the artist. 2. Mario Ybarra Jr. holding a freshly inked printing plate etched with his self-portrait. 3. Mario Ybarra Jr., *In The Beginning*, 2018. Colored pencil and acrylic paint on paper, 11 x 14 in. Courtesy of the artist. 4. Carolina Caycedo stands in front of her work *To walk in the present looking forward towards the past, carrying the future on our back / Caminar por el presente mirando de frente hacia el pasado, cargando el futuro en nuestra espalda*, 2018. Photo by Kate Lain. 5. David de Rozas and Carolina Caycedo filming the performance in the North Vista at The Huntington for "Apariciones/Apparitions," a video project by Caycedo. Choreographed by Marina Magalhães and shot by de Rozas. Photo by Kate Lain. 6. Inspired by his research into the art of Albrecht Dürer and 16th-century illuminated manuscripts, Ybarra used ages-old printmaking techniques to produce etched self-portraits. 7. Carolina Caycedo looks at photographs in an autochrome collection from the 1920s to 1930s. Photo by Kate Lain. 8. A still from the performance in the North Vista at The Huntington for "Apariciones/Apparitions." Photo by Kate Lain.



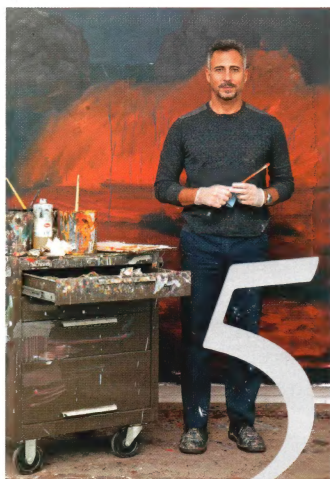


More than 100 students had the unique opportunity to immerse themselves in the world of art conservation as part of a Deep Learning Day developed by The Huntington's Education staff, focusing on the "Project Blue Boy" exhibition.
huntington.org/verso/2019/01/deep-learning-science-art-conservation

Known today as the "Father of Black History," Carter G. Woodson (1875–1950) was one of the first black historians to begin writing about black culture and experience.
huntington.org/verso/2019/02/historian-carter-g-woodson



The removal of a myrtle hedge from the Rose Garden provided rare and valuable material for bonsai.
huntington.org/verso/2018/12/compost-collectible



Tempera-with-gold-leaf panels from an altarpiece by Florentine Renaissance master Cosimo Rosselli (1439–1507) can be seen reunited on the same wall after more than 200 years of separation.
huntington.org/verso/2018/11/resplendent-reunion



Three pieces by Enrique Martínez Celaya—who is an author, poet, philosopher, and scientist—are now on view at The Huntington.
huntington.org/verso/2019/02/partnership-enrique-martinez-celaya

ON SOUNDCLOUD AND ITUNES...
These lectures are only a tiny fraction of The Huntington's audio programming available for free on SoundCloud and iTunes.

In Conversation with Stan Lai

Our Civil War
Gary W. Gallagher

The Lady and
George Washington
Mary Sarah Bilder

Jack London in Hawaii
Paul Theroux

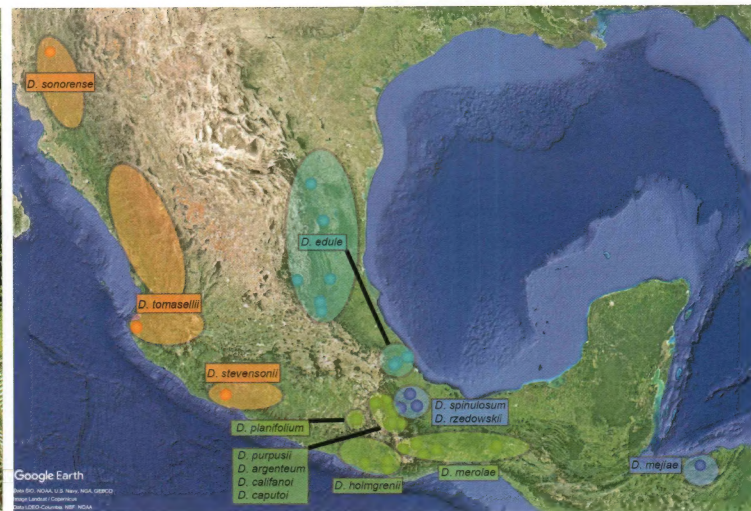
Filming Christopher Isherwood
Tom Ford

Border-Crossing Botanicals
Susan Burns

My Father, Boris Karloff
Sara Karloff

We're also on Facebook, Twitter, Instagram, and more! Links at huntington.org





What's Old Is New Again

A HUNTINGTON RESEARCHER'S SURPRISING FINDINGS ABOUT THE EVOLUTION OF *DIOON* CYCADS

By Usha Lee McFarling

The cycad is often regarded as a living fossil—a favorite food of dinosaurs that hasn't changed much in hundreds of millions of years. An international team of botanists debunked that idea in 2011, using genetic analysis to show that most living cycads are less than 12 million years old. Now, a new genetic study by a research botanist at The Huntington—conducted largely using material from the plant collections here—shows one cycad genus is far younger still. The study may also explain the distinctive distribution of species of the genus *Dioon* and help explain why the new species branched off when they did.

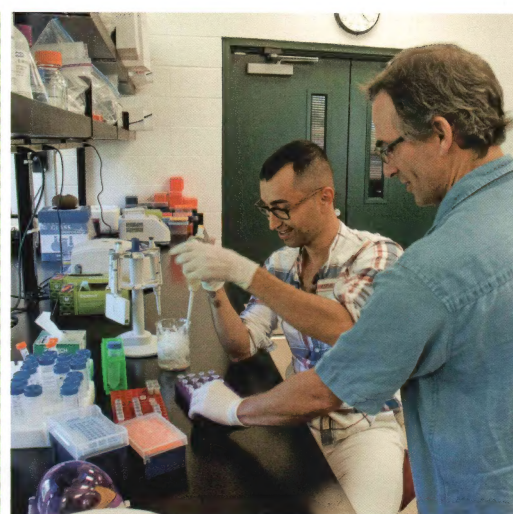
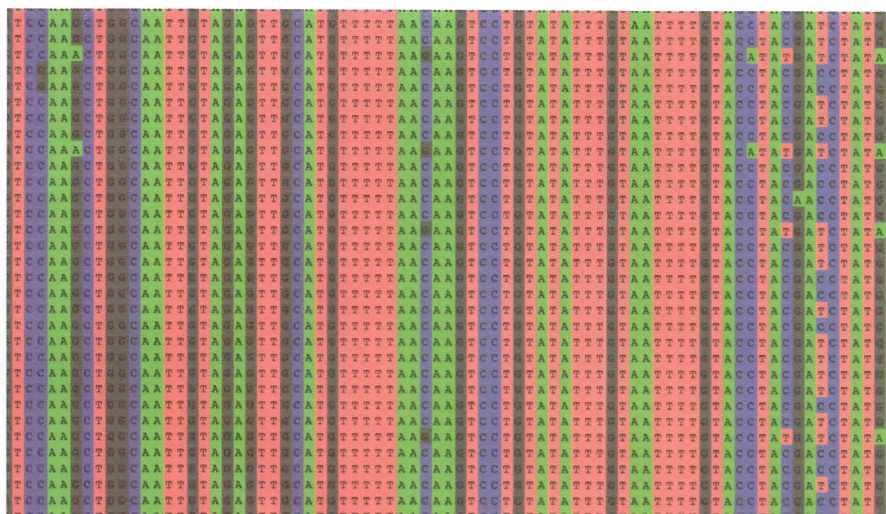
"We are trying to answer a fundamental question in evolutionary biology. How and why do new species form?" says Brian Dorsey, chief botanical researcher at The Huntington and lead author of the study, which was published in September 2018 in the *American Journal of Botany* and conducted with the help of scientists at the University of California, Berkeley and Cornell University.

Cycad researchers have long puzzled over *Dioon*, a hardy, slow-growing group of cycads. Various species are scattered around Mexico, and one is found in Honduras. Many of the plants live on steep cliffs and hillsides where tropical scrub forests

transition into oak and pine forest. "You see these patterns and wonder what can account for them," Dorsey says.

One of Dorsey's co-authors is Timothy Gregory, a retired Genentech scientist and supporter of the University of California Botanical Garden at Berkeley who has studied and propagated cycads for three decades. He has spent much time documenting *Dioon* in the wild and, in a 2004 paper, proposed a dynamic habitat hypothesis to account for their distribution. He suggested that *Dioon* species that existed at the time of the last great Ice Age were forced to move downward into warmer valleys to survive and perhaps interbred. The hypothesis suggests that, as the climate warmed, the plants then radiated out of canyons and upward onto slopes of canyons and split into the species and geographic patterns we see today.

The only problem with the idea, Dorsey thought, was that it meant that the new species would have had to split off during the Pleistocene epoch, which started just 2.6 million years ago. That didn't seem long enough for this slow-growing and slowly reproducing plant to speciate. "That's pretty recent, especially because cycad generation times are potentially hundreds of years," Dorsey says.



Dorsey conducted his genetic study largely using cycad leaves from The Huntington's collections and cycads that recently arrived here as a bequest from Loran Whitelock, the late Los Angeles cycad collector and expert. "Having the diversity of cycad species, particularly of *Dioon*, right outside my lab was essential for this research," Dorsey says. "It allowed me to collect in one day what would have taken weeks otherwise and provided plenty of material to develop the genetic methods we used."

By analyzing genetic material that differed among species, Dorsey's team was able to infer the relationships between species. They then used a molecular clock—the average rate at which a species' genome accumulates mutations—to estimate when those species split apart. The findings? Most living *Dioon* species are less than 500,000 years old and may still be in the process of speciating.

"I was really surprised. That's so young for a species that has such long generation times," Dorsey says. "Essentially, it's only a few generations."

Knowing that the plants split off during the Pleistocene fully supports the theory that the retreat of ice sheets played a major role in shaping the evolution of the plants. Last summer, Dorsey presented his work at the International Conference on Cycad Biology in South Africa. There, another international research group presented an alternative theory suggesting that *Dioon* cycads were much older. While the researchers still disagree, the two groups have decided to collaborate on future studies to pool their resources and refine their results. At the meeting, Dorsey was also appointed

to the International Union for Conservation of Nature's Cycad Specialist Group, which seeks to conserve the large number of cycad species that are threatened with extinction.

Dorsey's next step is to better understand the biogeography of cycads and the relationships that exist between living species. For that work, he'll spend time in the field, working with Mexican botanists to collect cycad material in Oaxaca and Chiapas that he will then analyze in his Huntington lab with the help of Pasadena Community College botany students he is training.

Dorsey, who received his doctoral degree at the University of Michigan studying *Euphorbia*, came to The Huntington in 2013 to start a research program in plant systematics and was immediately drawn to cycads. He's excited to further the scientific understanding of this strange, charismatic, and little-studied plant. "With cycads, the more we learn, the more questions we have," Dorsey says. "But we really are making a lot of progress in understanding the evolution of this group."

Usha Lee McFarling is the senior writer and editor in the Office of Communications and Marketing at The Huntington.

Left to right: Brian Dorsey, The Huntington's chief botanical researcher, collects cycad leaves for genetic analysis from a plant in The Huntington's collections. Photograph by Kate Lain.

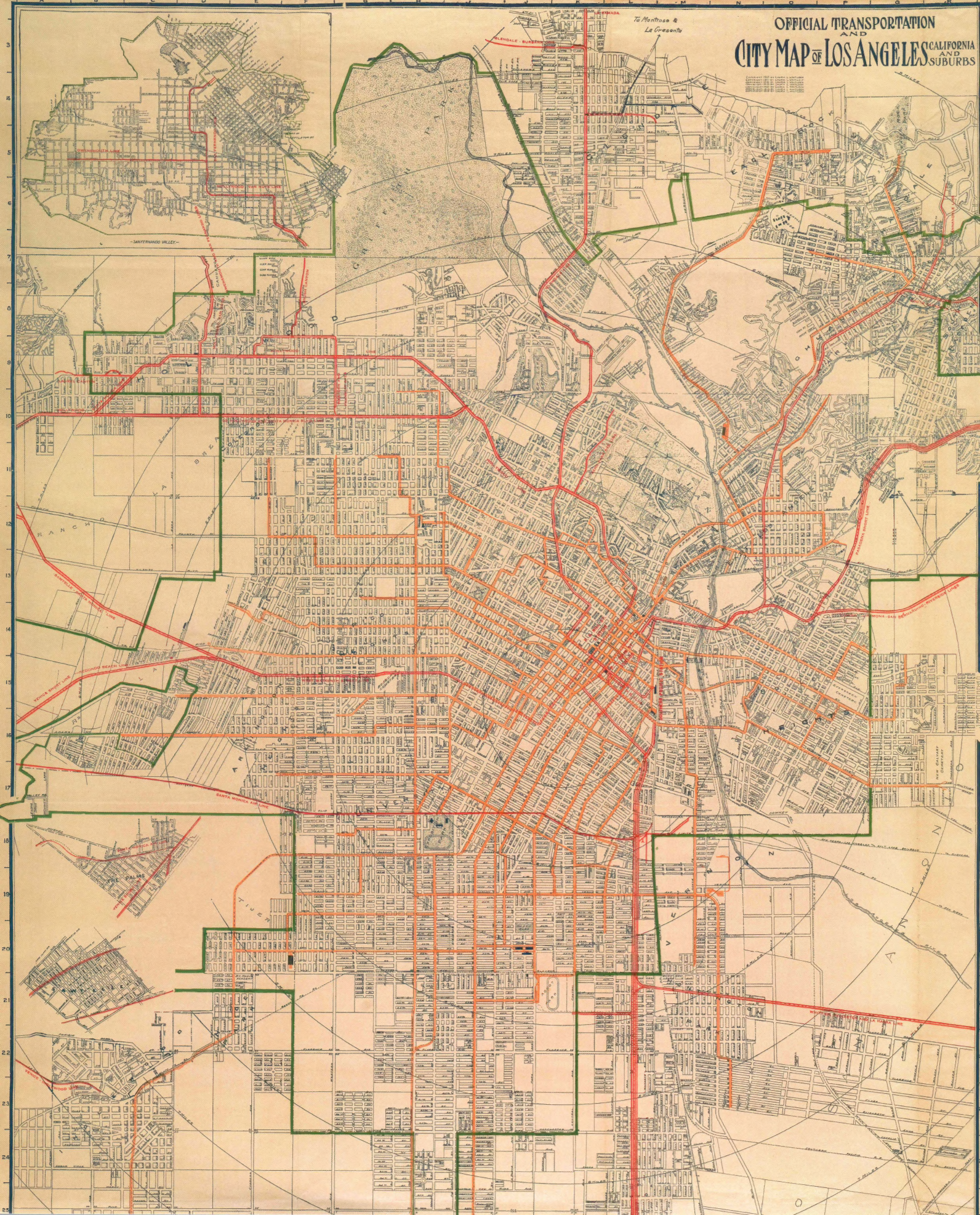
A map showing the geographic regions of Mexico where different *Dioon* species are found today. Image courtesy of Brian Dorsey.

The cycad *Dioon planifolium* growing within a tropical deciduous forest in the Mixteca region of Oaxaca, one of Brian Dorsey's research field sites. Photograph by Brian Dorsey.

This image shows the voluminous amounts of genetic data Brian Dorsey analyzed to determine when various cycad species may have evolved. Working with cycads is challenging because of the size of their genome, which is 25 times larger than the human genome. Image courtesy of Brian Dorsey.

Brian Dorsey (right) analyzing cycad DNA with Pasadena Community College student Armando Serrano. Photograph by Lisa Blackburn.

OFFICIAL TRANSPORTATION
AND
CITY MAP OF LOS ANGELES, CALIFORNIA
AND SUBURBS



Mapping a City on the Move

PIONEER CARTOGRAPHER LAURA L. WHITLOCK
CAPTURED A MEGALOPOLIS IN THE MAKING

By Lily Allen

In August 1919, Henry and Arabella Huntington drafted documents converting their San Marino ranch into a “library, art gallery, museum, and park.” Today, staff across The Huntington, including myself, are working on a host of exhibitions and programs that, from fall 2019 to fall 2020, will celebrate and reflect on the past 100 years, while highlighting the ideas that may shape the next century.

For my part, I have been happily immersed in helping to prepare “Nineteen Nineteen,” a major exhibition that will examine the institution and its founding through the prism of a single, tumultuous year. It displays more than 250 objects drawn exclusively from The Huntington’s collection of manuscripts, photographs, books, and art. A collaboration of James Glisson, interim chief curator of American art, and Jennifer A. Watts, curator of photography and visual culture, the exhibition will be on view from Sept. 21, 2019, to Jan. 20, 2020, in the MaryLou and George Boone Gallery.

Something I love about the show is the diversity of its contents, all connected to its namesake year. Those who want to see resplendent manuscripts, the works of famous artists, or the journals of great (or notorious) individuals will not be disappointed. Everyday objects—such as posters, sheet music, and a pen knife—also tell stories. These are just as intriguing as those behind rare first editions or fine works of art.

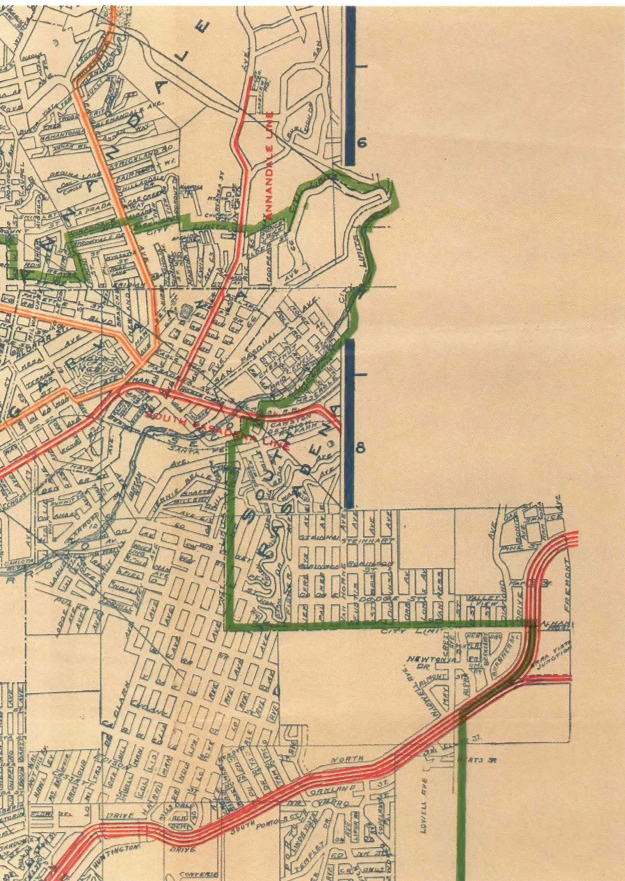
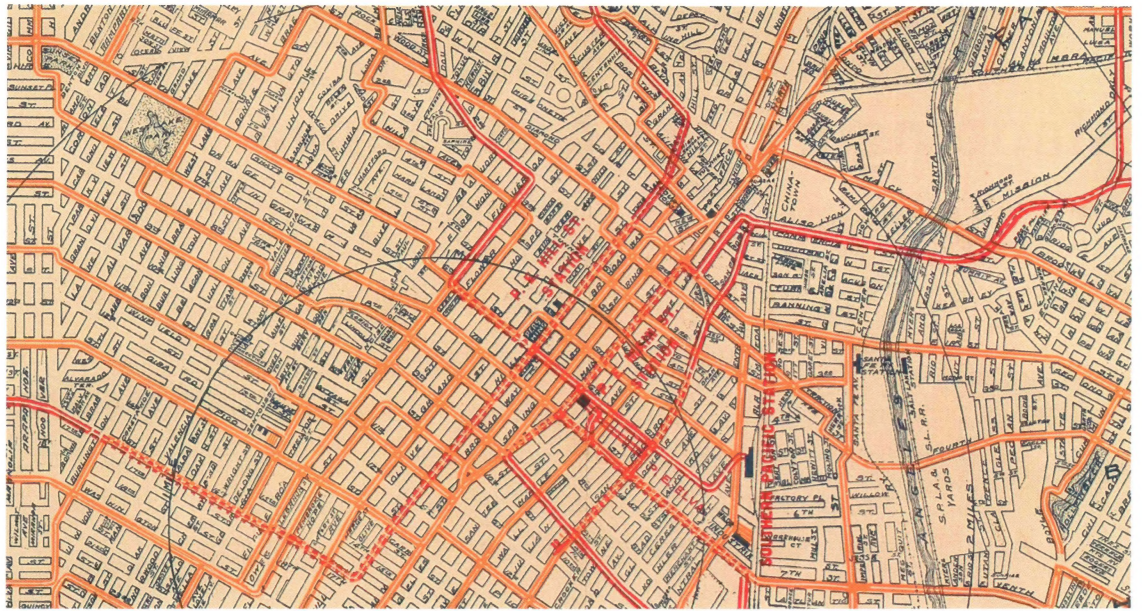
The *Official Transportation and City Map of Los Angeles*, one of numerous maps featured in the exhibition (spoiler alert: maps were very significant nationally and internationally in 1919), is proof of this. Its creator, Laura L. Whitlock, was the first woman cartographer in the United States to publish her work for the mass market and the first person in the country to win a federal lawsuit establishing copyright protection for future mapmakers. Her map’s form and content reveal not just infrastructure to come (the 405 Freeway, for example), or defunct neighborhood names (like “Eagle Rock Valley”), but also her own personality and feelings about Los Angeles and its once-extensive streetcar systems.

Whitlock was born in Iowa in 1862 and began her professional life as a music instructor. In 1895, she moved with her mother to Los Angeles, where numerous entrepreneurs (including Henry E. Huntington) had been laying track since 1873. By the time of her arrival, the county was on the cusp of claiming one of the most robust rail networks in the nation. Its population increased by 450 percent from 1900 to 1919. For Whitlock, trains and the mobility they allowed proved to be more than a convenience of her new home—



Opposite page: Detail of *Official Transportation and City Map of Los Angeles*, 1919. The Huntington Library, Art Collections, and Botanical Gardens. This page: Laura L. Whitlock. Unknown date and photographer. Security Pacific National Bank Collection/Los Angeles Public Library.

Right: All rail lines lead to downtown Los Angeles, in 1919. Whitlock's tracings measure radial distance from this core district—appearing to give it a pulse. Below: The top-right corner of the map shows the coordinate system Whitlock included for viewers to find and describe locations. Not only do the neighborhoods of Garvanza, South Pasadena, and El Sereno exceed the green line of the official city limits—they punch through the frame of the map itself!



they changed the trajectory of her career. She initially continued teaching music while moonlighting in a florist's shop. Her name soon appeared in the newspaper as she offered guided group excursions to the orchards of Riverside and Redlands, the beaches of San Diego, and the Grand Canyon.

By 1903, Whitlock opened her own "tourist headquarters" downtown. An announcement in the *Los Angeles Times* referred to the midwesterner as "one of the most competent instructors on the glories of California." The newspaper stated that the space had "no commercial features" but merely "lounging furniture and other paraphernalia designed for...travelers seeking information." Advertisements placed in the paper by Whitlock promote a "Travel and Hotel Bureau" run by "L. L. Whitlock, Agent for all transportation lines. Leading hotels. Resorts of California. Hawaii."

At some point while running her agency, which the *Times* characterized as recreational, Whitlock took up cartography. Like commerce, mapmaking was not considered the purview of women at the time. Though a handful of women throughout history had pursued the profession, they did so predominantly under the aegis of an existing family business. It was not until World War I, and to a larger extent World War II, that women were sought for cartographic work. Even then, like their "computer" counterparts in science and technology, they worked as subprofessionals with little hope of promotion.

It is not clear what sparked Whitlock's interest in mapmaking. Perhaps she was tired of doling out directions to confused tourists at her headquarters. But like every new venture she undertook, she had a flare for it. The Huntington map, for example, was first printed in 1910, and on its sixth edition by 1919. In drafting it, Whitlock must have leveraged her years of working closely with railroad personnel while she guided tours and booked vacations. In a 1911 *Times* advertisement, Whitlock claimed that hers was "the only map containing exclusive railway data, as the electric railway officers give no data to other publishers." By 1918, *Sunset* magazine referred to her as "the official map-maker of Los Angeles county."

Popularity can be a curse as well as a blessing. *The Official Transportation and City Map* was so successful that 20,000 pirated copies were sold around the city. The perpetrators included a Mr. Bowditch Blunt (the man who printed the duplicates) and a more formidable foe, the Los Angeles Map and Address Company, which published and sold the stolen plan. Whitlock may have

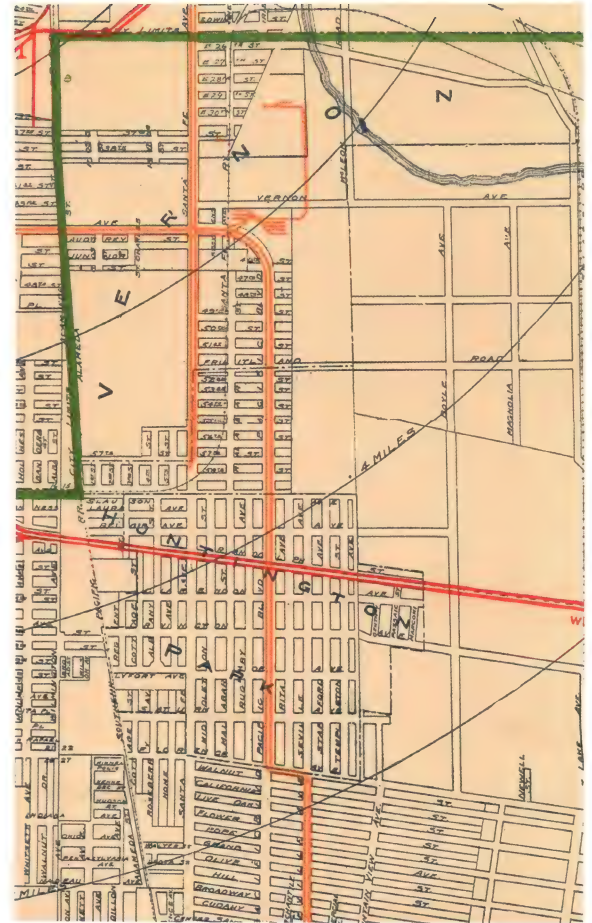
included a “copyright trap”—a purposeful mistake or artifact inserted into a map by its maker to catch plagiarizers. In any event, Blunt’s version was so similar to the original that a lawyer advised Whitlock to file a civil suit for damages immediately.

Whitlock was aware of the potential landmark status of her case. Rather than agreeing to a settlement in a local court, she dug in for a protracted battle in the federal arena. Though the first U.S. copyright law dates back to 1790, it had never been applied to maps specifically. Whitlock fought for three years, through three levels of court, undergoing intense cross-examination. She reinvented herself once more, this time as an expert in copyright law. When she finally walked away victorious, she had won \$20,000 for herself and set a precedent that protected the intellectual property of future cartographers. Many cartographers from all over the country requested the court transcripts.

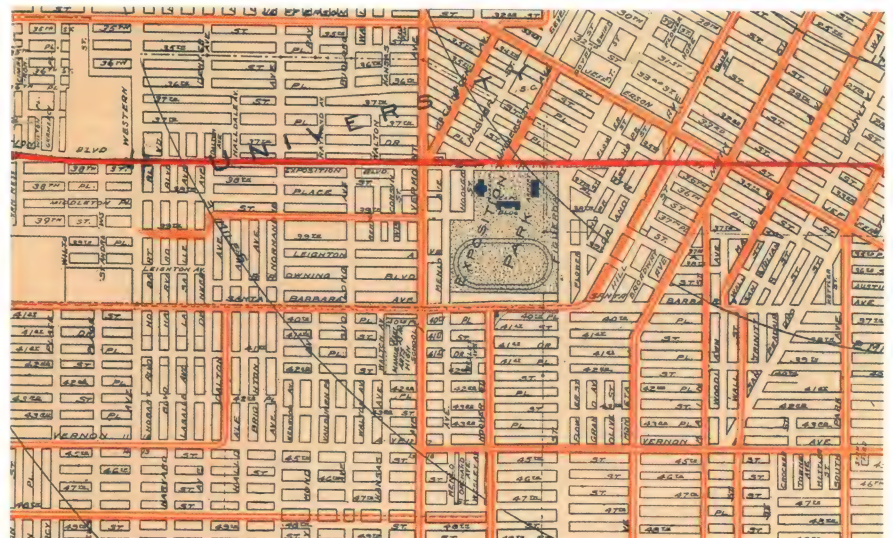
Maps for public consumption are assumed to visually represent geographic and statistical truth. In reality, their makers leave behind traces of themselves and their attitudes toward what is depicted, like so many copyright traps. This may be difficult to see at first in Whitlock’s map because of its meticulous detail. Like an anatomical model, she depicted Los Angeles in layers, starting with its rivers and green spaces, topped by its streets, then topped again by its rail network. Yet despite the visual density, the train lines are the clear focus. Colored in red and yellow, they are like arteries carrying blood that feeds the city tissue, rendered in dark blue. Train lines also were personally nurturing for Whitlock, bearing her from Iowa to California and furnishing her livelihood and personal pleasure as she explored the Pacific coast and Southwest alongside her clients.

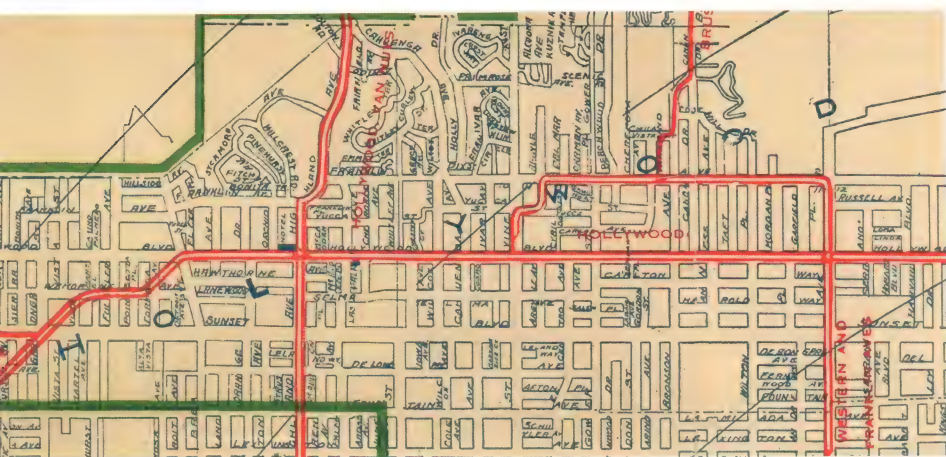
The feature that stands out most on the map, after the red-and-yellow rail systems, is the angular green line designating the official limits of Los Angeles. It seems to have been drawn less to emphasize boundaries and more to demonstrate how the city ignores and exceeds them. This sense of accelerating expansion is bolstered by the circular tracings that emerge from downtown like rings on a pond. Noticeable in other turn-of-the-century maps, their practical purpose is to designate radial distance, in this case, from city center. However, Whitlock extended her circles all the way to the map’s edge, as if her Los Angeles not only has a pulse, but is alive and kicking. Or perhaps they’re not separate rings but one giant train wheel, whooshing by. In any case, the design further underscores a link between transit and the current and future geographic and financial growth of the metropolis.

A final hint that Whitlock’s map was made not just to explain Los Angeles and its streetcars, but to celebrate them, is its size. At four feet high and three feet wide, it is not convenient for on-the-go navigation—even by 1919 standards. Its true purpose was likely proud display, a hypothesis additionally supported by the Los Angeles Map and Address Company, which, the *Times* reported, made “wall maps” with its unauthorized copy. What is more, every city street is named both on the map and in the



Above: The cities of Vernon and Huntington Park were also key parts of the greater L.A. area that Whitlock included in her map, despite technically existing beyond the green city-limit line. In this less-dense corner of the plan, we can see the distances from downtown Los Angeles on Whitlock’s one-mile radial rings. Below: To say Whitlock was obsessed with detail is an understatement. Exposition Park is a small square on her map, yet she still locates the Natural History Museum, Expo Bloc, Armory, and the racetrack-turned-rose-garden within it.





Top: In the thick of Whitlock's map, beneath the word "Elysian," we get a valuable glimpse of the layout of Chavez Ravine, the neighborhood that existed before the valley was forcibly wrested from its Chicano owners to build Dodger Stadium in the 1950s. Above: As Whitlock's map shows, the names Sunset Boulevard and Hollywood have always been intertwined.

index that occupies the bottom and right sides of the plan. Whitlock's map, though certainly useful for wayfinding, gave Angelenos the added thrill of finding their home amidst the complexity—inviting them to visualize themselves as part of the city's dynamic growth and prosperity.

For many people, this invitation to abundance rang false. As Henry Huntington's own business

model demonstrates, streetcar expansion went hand in hand with mass real estate buyouts. These buyouts displaced ethnic minorities and the economically disadvantaged already living on the land. These same individuals were also barred, financially and/or socially, from returning to their old neighborhoods, newly outfitted with middle-class housing and the added attraction of rail connectivity. Thus, while Whitlock and her map are triumphant and inspiring, they tell only a fraction of the story of the year 1919, a narrative that even the most comprehensive exhibition could never relate in full.

Lily Allen, a curatorial assistant at The Huntington, has contributed entries on five items (including Whitlock's map) featured in the upcoming catalog for the "Nineteen Nineteen" exhibition. She is grateful to Glen Creason, librarian of history and genealogy at the Los Angeles Public Library, for sharing the photograph of Whitlock, and for his discussion of Whitlock's work in his book Los Angeles in Maps (2010).



The Influential Vision of Carleton Watkins

HIS INDELIBLE PHOTOGRAPHS CAPTURED AND PROMOTED THE AMERICAN WEST

By Tyler Green

In his new book, art writer Tyler Green argues that Carleton Watkins (1829–1916)—widely considered the greatest American photographer of the 19th century—was also one of the most influential artists of his era.

Carleton Watkins: Making the West American (University of California Press, 2018) is the first-ever biography of Watkins, as well as the first new history of the birth of the national park concept since 1948.



The Huntington owns more than 1,000 Watkins photographs. The collection's origins can be traced to his boyhood friendships with members of the Huntington family. At the center of The Huntington's holdings are four albums of Watkins's mammoth (18 x 22 in.) views bound in morocco leather. Over the years, The Huntington continued to add to its Watkins holdings through gift and purchase, making it one of the great repositories of his work. The following is an excerpt from the introduction to Green's book, winner of the 2018 California Book Awards's Gold Medal for Contribution to Publishing. (The excerpt is reproduced with permission by University of California Press).

San Franciscans have always heard earthquakes before they have felt them. Just after dawn on the morning of April 18, 1906, 76-year-old Carleton Watkins, like nearly everyone else in San Francisco, heard a mighty rumble.

It started as a low hum southwest of the city, under the Pacific Ocean. The sound traveled through the seabed until it reached the western edge of the city, Ocean Beach, and continued under the rocky highland that was the mostly unpopulated west half of San Francisco, underneath the Army Presidio and nearby Golden Gate Park, under Twin Peaks, then right down the rail line that linked

the park to the city. As it hit the Western Addition, where the populated core of San Francisco began, it grew into a wall of sound. Until now, the deep roar was made by the earth acting on itself, by rock grinding against rock. Now it was also timbers snapping, from bending, and brick walls crashing. This was when the invisible disaster in the making would have awakened Watkins, one of the few San Franciscans who had lived through the last great earthquake in 1868, a temblor that left streets with deep, broad cracks and that knocked buildings to the ground. Once you hear a big earthquake, you never forget.

Back in 1868, Watkins, then a sprightly 38-year-old, had grabbed a couple of cameras and headed out into the streets. Back then, he was at the height of his powers. He was famous not just in San Francisco but in New York, Boston, Washington, and even in Europe, where he had just won a medal at the Paris Exposition Universelle, a world's fair. In that exciting decade, Watkins's pictures of Yosemite Valley, created in the spirit of strengthening ties between California and the Union, exhibited in New York and passed around Capitol Hill and probably the White House, created a sensation and motivated Congress and President Abraham Lincoln to preserve a landscape for the public, the first expression of the idea that would later come to be known as the national park and that would lead to the designation of public land such as national forests. His reputation made, Watkins spent the next two decades making pictures of the West that defined the region for scientists, businessmen, bankers, policy makers, his fellow artists, and Americans who were thinking of moving west.

Watkins's customers, clients, and friends were men who pushed America into an age gilded by the gold they extracted from the mountains of California and Nevada. These bankers, miners, and land barons collected Watkins's work and hired him for commissions that both showed off their wealth and would help make them wealthier. Among Watkins's collectors and sometime commissioners were John C. Frémont, conqueror of Indian tribes, explorer, railroad promoter, brother-in-law of one of the Senate's most powerful, West-focused men, and the first Republican presidential candidate; John's wife, Jessie, the brains behind Frémont's books, his 1856 presidential campaign, and his California gold mine; and scientists such as John Muir, Clarence King, and George Davidson. Easterners such as Ralph Waldo Emerson, Frederick Law Olmsted, and Asa Gray, the most important scientist of the 19th century, who would bring Darwin's revolution to the United States, snapped up Watkins's too. The U.S. Senate hung pictures by Watkins in the Capitol, and an outgoing American president may have wanted to own four Watkinses so badly that he stole them from the White House.

Watkins courted men of learning and influence, but he made sure to become close with men of capital. First through John and Jessie Benton Frémont and later through William C. Ralston, the most powerful investor and banker in the West, then

through the executives of San Francisco water, railroad, and mining companies, and then through land baron and mine owner James Ben Ali Haggin and his colleagues who made the desert bloom, Watkins built business connections to California's wealthy elite, to the miners who extracted gold, silver, and copper from western lands, to the ranchers who raised cattle and later engineered the land into suitability for staple crops and orchards, and to the banker who helped enable it all. Watkins was accepted as one of them: he was an early member of San Francisco's famed Bohemian Club, the private enclave of San Francisco's journalists and its moneyed, progressive elite. But in 1906, Watkins was poor, as he had been for over 10 years. The skills that had brought him to prominence were gone. Photography was no longer a specialized skill; it had been a full decade since technology had advanced and passed Watkins by. Now Watkins was an avatar of a West in which allied men of capital and their companies controlled vast wealth and power, and in which the unaffiliated individualist, no matter how great he had been at what he did, withered.

Now, as the sound of the earthquake built into cacophony, Watkins was no longer famous or wealthy. His home was apparently a cheap apartment in a low-rent neighborhood south of the Slot, as San Francisco's Market Street was then known. Except for a handful of photographers and photography aficionados who recognized his work as important to the West and to America, he had been forgotten.

Page 13: Carleton E. Watkins [with cane, during aftermath of earthquake], April 18, 1906. Unknown photographer. The Huntington Library, Art Collections, and Botanical Gardens. Opposite page: Carleton Watkins, *Rounding Cape Horn, Central Pacific Railroad, Placer County, California*, ca. 1876. The Huntington Library, Art Collections, and Botanical Gardens. Below: Carleton Watkins, *The Secret Town Trestle, Central Pacific Railroad, Placer County, California*, ca. 1876. The Huntington Library, Art Collections, and Botanical Gardens.





Carleton Watkins, *Mission San Xavier del Bac, near Tucson, Arizona Territory*, 1880. The Huntington Library, Art Collections, and Botanical Gardens. Opposite, top: Carleton Watkins, *Yosemite Falls (Lower View)* 2630 ft., 1861. The Huntington Library, Art Collections, and Botanical Gardens. Opposite, bottom: Carleton Watkins, *Late George Cling Peaches*, 1888–89. The Huntington Library, Art Collections, and Botanical Gardens.

Below the Slot, apartment buildings were stacked close, and the walls were thin. When the roar was followed by shaking, Watkins would have heard the iron stoves commonly used for heating crashing through his and his neighbors' floors. He'd have heard plaster separating from walls and ceilings, bricks crunching and disintegrating as the timbers and giant iron beams that held up all of it snapped. A few blocks away, the dome on top of San Francisco's brand-new City Hall smashed through three floors of offices. In his own rooms, Watkins would have heard the sound of many hundreds of his glass negatives clanging back and forth. Within moments, nature's low rumble was replaced by the sound of man's ruin, as an untold number of apartment buildings, boardinghouses, industrial buildings, meatpacking factories, hotels, office buildings, banks, theaters, and more crashed to the ground.

The earthquake lasted 45 seconds, but the disaster was only just beginning. Even as buildings continued to fall, Watkins would have smelled smoke. Fires, ignited by all those hot stoves crashing through wooden floors, started throughout the

city. To this day, no one knows how many fires started in the minutes after the earthquake. Many grew into infernos that consumed entire blocks, entire neighborhoods, and within hours, much of the city itself.

By now Watkins's senses would have been overwhelmed: he heard disaster, he felt the vibrations of falling buildings, and every minute the smell of fire intensified. The more smoke Watkins smelled, the more afraid he must have been. For weeks, Watkins had been preparing to transfer much of his life's work to the museum at nearby Stanford University. In fact, just a week before the earthquake, a curator from the university had visited Watkins in these very rooms in preparation for the university's apparent acquisition of Watkins's archives, the first time an American university or museum would recognize a photographer's importance in such a way. We don't know if Watkins thought about any of that. There may not have been time. Watkins rose and dressed in a black suit, put on his hat, and grabbed his cane. He left his negatives, prints, and papers behind—what else could he do?—and left his house.

A photograph captures what happened next. Gingerly, Watkins walks along a sidewalk toward Russian Hill or Nob Hill, toward somewhat safer ground. Bricks that had fallen off the front of the building to Watkins's right litter the sidewalk. A few feet in front of him, the crumbled front of another building covers the street. There are flames in the windows of the Beaux-Arts building behind Watkins. Thick black smoke streams from its roof.

Watkins pushes much of his weight onto the right side of his body, which is further transferring it to his cane. He is having difficulty walking. A younger man keeps a steadying hand of Watkins's back. Nearly everyone in the picture is gawking at the fires, at the damage. Everyone, that is, except for Watkins, who stares blankly ahead. Someone standing behind a camera has yelled something like "Look here!," and so Watkins, a man who had once been famous for seeing creatively, looked where he was told. He might as well; while he could smell the ash and smoke, while he could feel dust coming down like snowflakes, while he could feel the sidewalk shake, he could not see. The greatest photographer and most influential American artist of the 19th century was now nearly blind.

As someone led Watkins away from the Slot in the hours after the quake, Watkins would have known that everything he had—all the photographs he'd taken since 1876 plus a life's worth of records, correspondence, notes, and more—was in danger. Within hours a fire would destroy all of it. The Carleton Watkins collection would never make it to Stanford University, where an institution's early recognition of a "mere photographer" as a major figure of post-Civil War America may have played a pioneering role in elevating both Watkins as an artist and photography as an important art historical discipline nearly a hundred years earlier than it did.

As a result of the 1906 San Francisco earthquake and fire, which destroyed not only all of Watkins's possessions but also much other material around the city that might have informed our knowledge of the 19th-century West, almost no textual documentation of Watkins's life exists. Among the first-person accounts of Watkins's life that have survived are a couple dozen letters in the artist's own hand, two flawed and routinely factually incorrect oral histories provided by Watkins's daughter, Julia, and a similarly error-strewn mini-biography by one of California's first historians, a Watkins friend named Charles Beebe Turrill.

Telling the story of Watkins and his impact on the West and the nation has required building an

understanding of his community, the people with whom he interacted and for whom he worked, understanding that constellation, and then intuiting how Watkins and his work fit into it. Fortunately, many of the people with whom Watkins interacted during his life left California for the East, either to return home or to work there. Many of the most important archives related to Watkins and his work are in places such as Massachusetts, Vermont, and Washington, D.C., places where earthquakes and fires were less common.

Thank goodness for Watkins's pictures, which are both art and historical documents. Watkins





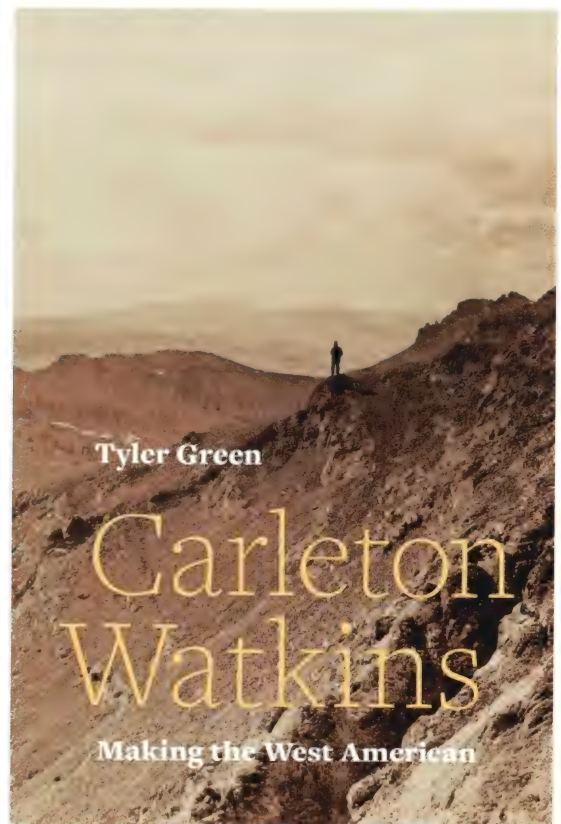
Top: Carleton Watkins, *View on the Calloway Canal, near Poso Creek, Kern County, California*, ca. 1887–88. The Huntington Library, Art Collections, and Botanical Gardens. Above: Carleton Watkins, *Haying at Buena Vista Farm*, ca. 1886–89. The Huntington Library, Art Collections, and Botanical Gardens. Right: Tyler Green's *Carleton Watkins: Making the West American*, University of California Press, 2018.

was a preposterously prolific artist. He made over 1,300 mammoth-plate pictures, the huge photographs on which his reputation rests today, and thousands more stereographs and smaller-format pictures. They provide the most important clues to his story, to the men and businesses for whom he worked, to the ideas and artworks that informed his approach to art, and to the 19th-century world to which he hoped to contribute.

Writing about Watkins has been like writing about artists such as Goya or Titian, other artists

about whom little textual material survives. Like the historians who have written about them, I have done my best to reconstruct and understand Watkins's world. The biographer T. J. Stiles has written that we read (and write) biography to affirm our belief that "the individual matters... How does the world shape the individual, and the individual the world? To what extent are convictions, judgment, and personality merely typical, embedded in a larger context—and where does the individual wiggle free?" Surviving material does not allow us to know about Watkins's personality, his convictions, his judgment, or much of anything else about him. However, through his work and its impact, we can see how important his individual life was to art, to the West, and to America. That's all any of us will be able to do.

Tyler Green is the producer and host of The Modern Art Notes Podcast and was previously the editor of the website Modern Art Notes, which published from 2001 to 2014.



Painting the Wind

HOW CELIA PAUL'S ART RESONATES WITH THAT OF THE BRONTË SISTERS

By Karla Nielsen

Seven paintings by the contemporary British artist Celia Paul (born 1959) are on view through July 8, 2019, in the Huntington Art Gallery. The eponymously titled exhibition "Celia Paul" originated at the Yale Center for British Art in 2018 as a show guest curated by Hilton Als, Pulitzer Prize-winning staff writer and theater critic for The New Yorker. The works on display were selected by Als in collaboration with the artist and testify to their friendship.

Beautifully installed in the Focus Gallery on the second floor of the Huntington Art Gallery, the "Celia Paul" exhibition invokes works by some of the 19th-century painters in The Huntington's permanent collection on display in adjacent galleries, such as those by J.M.W. Turner and John Constable, who also explored light and landscape. That resonance appealed to Chief Curator of European Art Catherine Hess, who brought the exhibition to The Huntington.

One of the seven paintings in the show, *The Brontë Parsonage (with Charlotte's Pine and Emily's Path to the Moors)*, 2017, suggests that the painter feels a connection to her compatriots, the talented Brontë siblings: Charlotte, Emily, Anne, and their brother, Branwell. Hess confirms that Paul's interest in the Brontës is deep and ongoing: "Paul does feel a great kinship with the Brontës and, given the holdings of our library, we are fortunate to be able to consider firsthand artistic and literary works that share similar undercurrents of yearning and introspection."

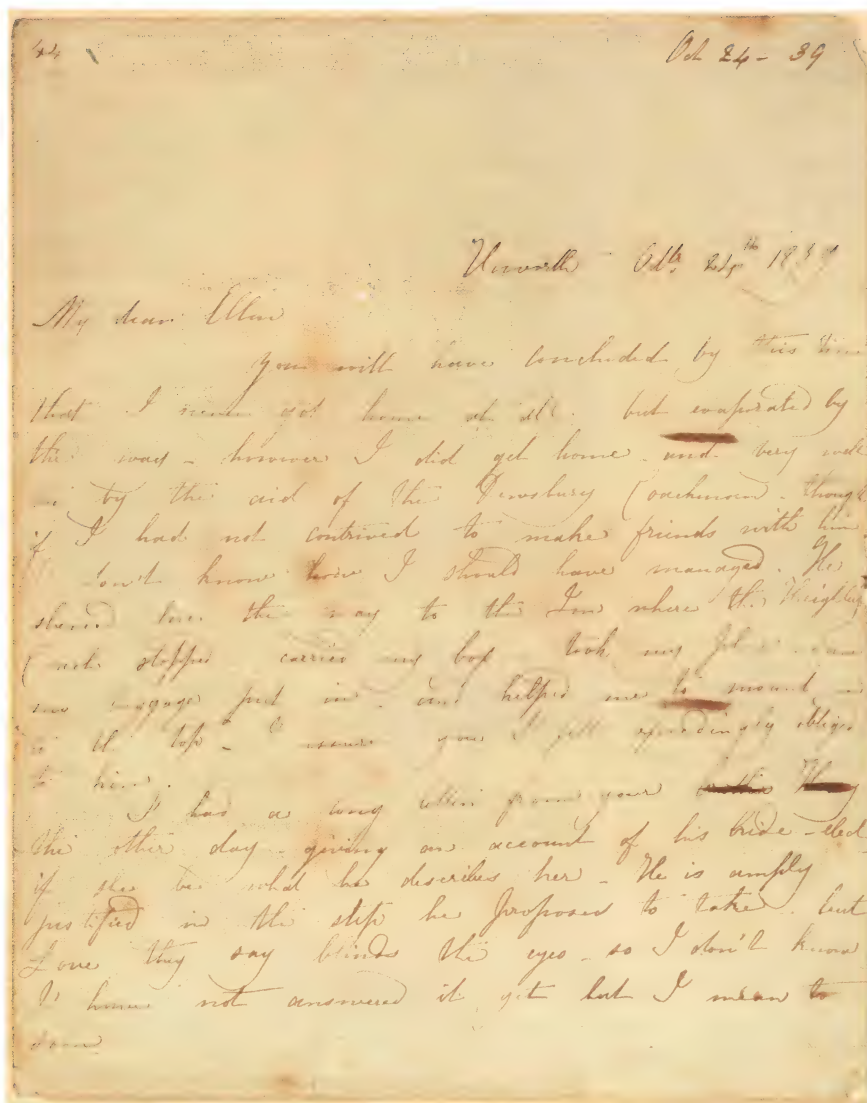
Through this Brontë reference, the show speaks to the 19th-century material in The Huntington's library: manuscript poems by Charlotte, Emily, and Anne Brontë. The library also holds more than 100 letters written by Charlotte Brontë (1816–1855) to her childhood friend Ellen Nussey (1817–1897). Charlotte met Ellen at the Roe Head School in their early teens, and the friends exchanged letters of great intimacy and detail.

There are many parallels between the early lives of Celia Paul and the Brontë siblings. Paul was born to missionary parents in India; her family returned to England when she was still a child. The Brontë patriarch, Patrick, was an Anglican clergyman. After his wife passed away (soon after giving birth to Anne), Patrick raised his children with his sister-in-law.

Celia Paul and the Brontës grew up in families that were tight-knit and creative. As children, they played with their siblings in a remote part of the British countryside and found artistic inspiration wandering outdoors. The Brontë children, and in particular the younger sisters, spent much time outdoors together in Yorkshire. They often wrote the landscape into their stories and their stories into the landscape, inventing imaginary worlds that they chronicled in small handwritten booklets.



Top: Celia Paul, *The Brontë Parsonage (with Charlotte's Pine and Emily's Path to the Moors)*, 2017. Oil on canvas, 36 1/8 x 29 1/4 in. © Celia Paul. Courtesy of the artist and Victoria Miro, London/Venice. Above: Cross-written letter by Charlotte Brontë to Ellen Nussey, July 4, 1834. The Huntington Library, Art Collections, and Botanical Gardens.



Above: First page of Charlotte Brontë's letter to Ellen Nussey, Oct. 24, 1839. The Huntington Library, Art Collections, and Botanical Gardens. Right: Celia Paul, *Clouds and Foam*, 2017. Oil on canvas, 25 x 22 3/8 in. © Celia Paul. Courtesy of the artist and Victoria Miro, London/Venice.



sky and the dampness in the air at different times of day, drawing attention to moments of heightened significance. Such paintings assert a connection between landscape, memory, and familial intimacy. Paul began painting seascapes soon after her mother's death in 2015, believing that, if her mother was anywhere, she was part of the sea.

The Brontës are perhaps most famous for their depictions of moors in their novels. Think of the heather-covered hills that surround *Wuthering Heights*, the moorland farmhouse in Emily's novel of the same name, and the isolated Thornfield Hall in Charlotte's *Jane Eyre*. The moors are a region of danger and abandon in the novels—the place where characters venture when overcome by passion.

Charlotte herself drew avidly and created characters who expressed their suppressed emotions through visual art. We might recall the scene in *Jane Eyre* in which Rochester examines Jane's drawings and, impressed by their evocative power and peculiarity, asks, "And who taught you to paint wind? There is a high gale in that sky, and on this hill-top."

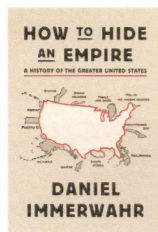
We know that Charlotte Brontë was interested in emotionally charged weather from her personal as well as her published writing. Charlotte saw the sea for the first time on a trip to the seashore with Ellen Nussey in early 1834—probably the best vacation of her life. She writes to Ellen on Oct. 24, 1839: "Have you forgot the Sea by this time Ellen? is it grown dim in your mind? or you can still see it dark blue and green and foam-white and hear it—roaring roughly when the wind [is] high or rushing softly when it is calm?"

A century and a half later, Paul and her sisters played in virtually the same scenery. The Paul family vacationed in West Yorkshire near Haworth House, where the Brontës grew up. The subtitle of Paul's painting of Haworth House indicates that she actively imagined the young Brontës there. "Charlotte's pine" appears as a backlit cross hovering over a series of gravestones, from which extends "Emily's path to the moors."

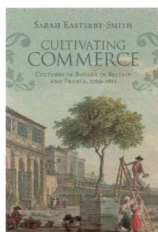
The other six paintings by Paul on view share thematic and gestural concerns with the work of the Brontës. Five of them are landscapes or seascapes. Paul, like the Brontë authors, imbues the natural world with intense, introspective emotion. Her brushwork emphasizes the brightness of the

In Print

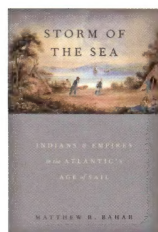
A SAMPLING OF BOOKS BASED ON RESEARCH IN THE COLLECTIONS



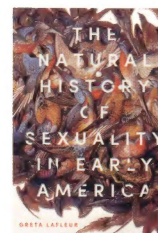
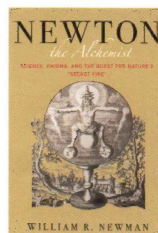
In *How to Hide an Empire: A History of the Greater United States* (Farrar, Straus and Giroux, 2019), Daniel Immerwahr, associate professor of history at Northwestern University and a 2015–16 National Endowment for the Humanities Fellow at The Huntington, provides a pathbreaking history of the United States' overseas possessions and explores the meaning of its empire. Describing forgotten episodes that cast American history in a new light, he reflects on such places as the Guano Islands, where prospectors collected one of the 19th century's most valuable commodities; the Philippines, location of the most destructive event on U.S. soil; and Puerto Rico, where U.S. doctors conducted grisly experiments they would not have attempted on the mainland.



Sarah Easterby-Smith—senior lecturer in modern history and director of the Centre for French History and Culture at the University of St. Andrews, as well as a 2011–12 Dibner Fellow in the History of Science at The Huntington, rewrites the histories of botany and horticulture from the perspectives of plant merchants who sold botanical specimens in *Cultivating Commerce: Cultures of Botany in Britain and France, 1760–1815* (Cambridge University Press, 2018).

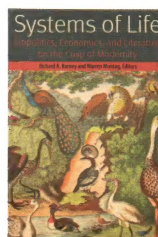


In *Storm of the Sea: Indians and Empires in the Atlantic's Age of Sail* (Oxford University Press, 2019), Matthew R. Bahar, associate professor of history at Oberlin College and a 2014–15 National Endowment for the Humanities Fellow at The Huntington, tells the forgotten history of Indian pirates hijacking European sailing ships on the rough waters of the north Atlantic and of an Indian navy pressing British seamen into its ranks.



William R. Newman, Distinguished Professor and Ruth N. Halls Professor in the Department of History at Indiana University and a 2014–15 Eleanor Searle Visiting Professor in the History of Science at Caltech and The Huntington, unlocks the secrets of Newton's alchemical quest, providing a radically new understanding of the uncommon genius who probed nature at its deepest levels in pursuit of empirical knowledge in *Newton the Alchemist: Science, Enigma, and the Quest for Nature's "Secret Fire"* (Princeton University Press, 2019).

If sexology—the science of sex—came into being sometime in the 19th century, then how did statesmen, scientists, and everyday people make meaning out of sex before that point? In *The*



Natural History of Sexuality in Early America (Johns Hopkins University Press, 2018), Greta LaFleur, associate professor of American Studies at Yale University, demonstrates that 18th-century natural history—the study of organic life in its environment—provided the intellectual foundations for the later development of the scientific study of sex.

Systems of Life: Biopolitics, Economics, and Literature on the Cusp of Modernity (Fordham University Press, 2019)—edited by Richard A. Barney, associate professor of English at the University at Albany, SUNY, and Warren Montag, Brown Family Professor in Literature at Occidental College—offers a wide-ranging reevaluation of the emergence of biopolitics in Europe from the mid-18th to the mid-19th century. Based on a conference at The Huntington in 2012, the essays collected in this book reopen the question of how concepts of animal, vegetable, and human life had an impact on the Enlightenment project of considering politics and economics a joint enterprise.

Education Strike

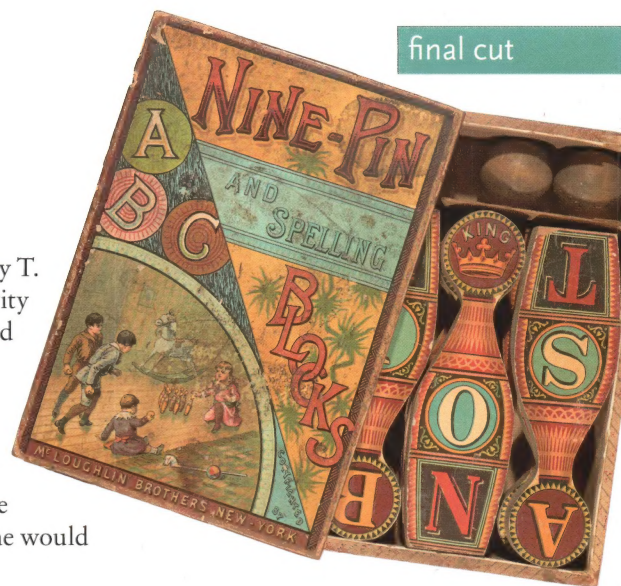
By Lori Ann Achzet and Krystle Satrum

Produced around the turn of the 20th century, this nine-pin bowling set from the Jay T. Last Collection of Graphic Arts and Social History was designed as both a fun activity and an educational toy. One can imagine a group of children setting up the pins and rolling the small wooden balls to knock them down. However, the pins could also be used to teach children how to spell. Each of the pins has two or three letters on it so that you can set pins next to each other to spell words.

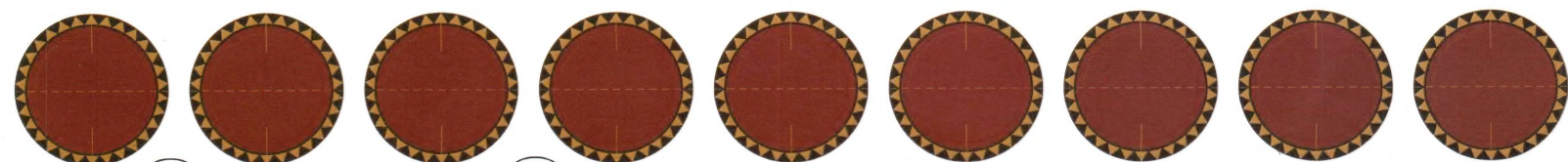
This set has the inscription "Harry Adams July 10, 1902 Peoria IL" handwritten in pencil on the side of the "H" pin. Young Harry might have used the pins to practice his spelling before writing his name and hometown on the side of the pin, though he would have had to come up with some extra pins to repeat some letters.

You can create your own set of bowling pins based on this educational children's game. Cut out the pins and stands below, following the diagrams. Set up the pins and play your own game using a marble or ball.

Lori Ann Achzet is the senior graphic designer in The Huntington's Office of Communications and Marketing. Krystle Satrum is the assistant curator of the Jay T. Last Collection.



Nine-Pin and Spelling Blocks, McLaughlin Brothers, New York, ca. 1900. Jay T. Last Collection of Graphic Arts and Social History. The Huntington Library, Art Collections, and Botanical Gardens.



1. Fold on the dotted lines.
Cut the solid lines.



2. Insert pin slit
into stand slit.



3. Arrange pins in the
"Nine-Pin" formation
and knock them down
with a marble or ball.



1151 Oxford Road
San Marino, CA 91108
huntington.org

Non-Profit Org.
U.S. Postage
PAID
Industry, CA
Permit No. 4278



WHAT'S THIS?

Flip to the "final cut"
on page 23 to find out.